

REMARKS

Claims 1-2, 6-7, 8, 10, 16-17, 20, 21 and 22 are amended, no claims are canceled, and claim 24 is added; as a result, claims 1-2 and 6-24 are now pending in this application.

No new matter has been added by the amendments to claims 1-2, 6-7, 8, 10, 16-17, 20, and 22. Support for the amendments to claims 1-2, 6-7, 8, 10, 16-17, 20, and 22 is found, for example but not necessarily limited to, the specification at page 6, lines 17-26.

No new matter has been added through new claim 24. Support for new claim 24 is found for example but not necessarily limited to, the specification at page 6, lines 21-24.

Double Patenting Rejection

Claims 1, 2 and 6-23 were rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-24 of U.S. Patent No. 6,687,539 in view of Haefner et al. (U.S. Patent No. 6,169,918) or Markowitz (U.S. Patent No. 4,343,311).

Claims 1, 2 and 6-23 were rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 6,304,778 in view of Haefner et al. (U.S. Patent No. 6,169,918) or Markowitz (U.S. Patent No. 4,343,311).

Applicant does not admit that the claims 1-2 and 6-23 are obvious in view of 1-24 of U.S. Patent No. 6,687,539 in view of Haefner et al. (U.S. Patent No. 6,169,918) or Markowitz (U.S. Patent No. 4,343,311), or that claims 1-2 and 6-23 are obvious in view of 1-7 of U.S. Patent No. 6,304,778 in view of Haefner et al. (U.S. Patent No. 6,169,918) or Markowitz (U.S. Patent No. 4,343,311). Applicants have not filed a Terminal Disclaimer at this time, but will revisit and reconsider the issue when the claims in the application are otherwise allowable.

§ 103 Rejection of the Claims

Claims 1-2, 8, 11-15, 17-19, and 22-23 (Rejection based on Struble, Haefner, and Markowitz)

Claims 1, 2, 8, 11-15, 17-19, and 22-23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Struble et al. (U.S. Patent No. 6,122,545) in view of either Haefner et al. (U.S. Patent No. 6,169,918) or Markowitz (U.S. Patent No. 4,343,311). Applicants respectfully traverse the rejection of claims 1, 2, 8, 11-15, 17-19, and 22-23.

Claims 1, 2, 8, 11-15, 17-19, and 22-23 are not obvious in view of the proposed combination of Struble and the cited portion of Haefner, or in view of the proposed combination of Struble and Markowitz, as claims 1, 2, 8, 11-15, 17-19, and 22-23 include subject matter that is patentable in view of these proposed combinations.¹ By way of illustration, independent claim 1, as now amended, recites,

a programmable memory device for storing one or more cross-chamber blanking settings and at least one preset refractory period value, **wherein each of the cross chamber blanking settings includes a time value for a cross chamber blanking period and a corresponding noise window based on a difference between the preset refractory period and the time value used for the cross-chamber blanking period;** and
circuitry for blanking sensing of atrial electrical signals in the monitoring circuitry for a period of time following sensing a last ventricle beat of the heart and **based on at least one of the cross-chamber blanking settings.**
(Emphasis added).

In contrast to the subject matter of independent claim 1, Struble states:²

"This is particularly the case when relatively short CDW times are programmed to optimize timing of the synchronous depolarization of the right and left heart chambers and conventional high gain sense amplifiers are employed. Thus, each sense amplifier for each pacing channel will require its own specific programmable blanking periods to avoid this problem and the problem of saturation of the sense amplifiers. For conventional, high gain sense amplifiers, the blanking periods are programmed in the range of 100 msec. Much shorter blanking periods can be used with the FDC sense amplifiers. Refractory periods of the sense amplifiers are also programmable in the range of 20-350 msec for atrial channel sense amplifiers and 150-500 msec for ventricular channel sense amplifiers. During the refractory periods, sensed events will not be allowed to reset the pacing escape interval or AV delay being timed out."

¹ Applicants do not admit or agree that any combination of Struble and Haefner or Struble and Markowitz are possible.

² See Struble at column 26, lines 2-18.

Thus, Struble concerns blanking periods, but fails to disclose or suggest, “wherein each of the cross chamber blanking settings includes a time value for a cross chamber blanking period and a corresponding noise window based on a difference between the preset refractory period and the time value used for the cross-chamber blanking period,” as required by independent claim 1.

The addition of Haefner and Markowitz, as applied in the rejection of the claims, fails to remedy these deficiencies in Struble. Thus, Applicants respectfully submit that at least this subject matter, as included in independent claim 1, is not obvious, and thus is patentable, in view of both the proposed combination of Struble and Haefner and Struble and Markowitz.

For reasons analogous to those stated above, independent claims 2, 8, 11, 17, and 22, at least as now amended, are not obvious, and are patentable, in view of both the proposed combination of Struble and Haefner and Struble and Markowitz. Claims 12-15, 18-19, and 23 depend from one of independent claims 11, 17, and 22, and so are also patentable for at least the reasons stated above with respect to independent claims 11, 17, and 22.

Claims 6-7, 9-10, 16, 20, and 21 (Rejections based on Struble, Haefner, Markowitz, Wickham, and Van Lake)

Claims 6, 7, 10, 16, 20, and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Struble et al. (U.S. Patent No. 6,122,545) in view of either Haefner et al. (U.S. Patent No. 6,169,918) or Markowitz (U.S. Patent No. 4,343,311), and further in view of Wickham (U.S. Patent No. 5,891,171).

Claim 9 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Struble et al. (U.S. Patent No. 6,122,545) in view of either Haefner et al. (U.S. Patent No. 6,169,918) or Markowitz (U.S. Patent No. 4,343,311), and further in view of Van Lake (U.S. Patent No. 5,653,737).

Applicants respectfully traverse these rejections of claims 6-7, 9, 10, 16, and 20-21. Each of these proposed combinations,³ even if permissible, do not meet all the requirements of claims 6-7, 9, 10, 16, and 20-21 because these extended combinations erroneously rely on Struble to

³ Applicants do not admit or agree that any combination or combinations of Struble, Haefner, Markowitz, Wickham, and Van Lake are possible.

meet the requirements of the independent claims from which claims 6-7, 9, 10, 16, and 20-21 depend.

As documented above, Struble fails to meet the requirements included in, for example, independent claims 1, 2, 8, 11, 17, and 23. For analogous reasons, Struble fails to meet the requirements included in any one of claims 6-7, 9, 10, 16, and 20-21.

The addition of Haefner, Markowitz, Wickham, and Van Lake fails to remedy these deficiencies in Struble. Thus, one of skill in the art would not regard any of these proposed combinations, as presented in the Office Action and as used in the rejections of claims 6-7, 9, 10, 16, and 20-21, as meeting all of the requirements of claims 6-7, 9, 10, 16, and 20-21. Therefore, claims 6-7, 9, 10, 16, and 20-21 are not obvious in view of the proposed combinations used in the Office Action in these rejections of claims 6-7, 9, 10, 16, and 20-21.

Claims 1-2, and 6-23 (Rejections based on Markowitz, Routh, Wickham, and Van Lake).

Claims 1, 2, 8, 11-15, 17-19, 22, and 23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Markowitz (U.S. Patent No. 4,343,311) in view of Routh et al. (U.S. Patent No. 5,735,881).

Claims 6, 7, 10, 16, 20 and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Markowitz (U.S. Patent No. 4,343,311) in view of Routh et al. (U.S. Patent No. 5,735,881), and further in view of Wickham (U.S. Patent No. 5,891,171).

Claim 9 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Markowitz (U.S. Patent No. 4,343,311) in view of Routh et al. (U.S. Patent No. 5,735,881), and further in view of Van Lake (U.S. Patent No. 5,653,737).

Applicants respectfully traverse these rejections of claims 1-2 and 6-23.

Claims 1-2 and 6-23 are not obvious, and are patentable, over each of the proposed combinations⁴ used in these rejections of claims 1-2 and 6-23. Even if the proposed combinations as used in these rejections of claims 1-2 and 6-23 were permissible, they do not meet all the requirements of claims 1-2 and 6-23 as these proposed combinations are applied in the rejections.

⁴ Applicants do not admit or agree that any combination or combinations of Markowitz, Routh, Wickham, and Van Lake are possible.

As documented above, any combinations including Markowitz, Wickham, and Van Lake fail to meet the requirements included in, for example, claims 1-2 and 6-23.

The addition of Routh fails to remedy these deficiencies. Thus, one of skill in the art would not regard any of these proposed combinations, as presented in the Office Action and as used in the rejections of claims 1-2 and 6-23, as meeting all of the requirements of claims 1-2 and 6-23. Therefore, claims 1-2 and 6-23 are not obvious in view of the proposed combinations used in the Office Action in these rejections of claims 1-2 and 6-23.

Reservation of Rights

In the interest of clarity and brevity, Applicants may not have addressed every assertion made in the Office Action. Applicants' silence regarding any such assertion does not constitute any admission or acquiescence. Applicants reserve all rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference. Applicants do not admit that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. To the extent that any rejection or assertion is based upon the Examiner's personal knowledge, rather than any objective evidence of record as manifested by a cited prior art reference, Applicants timely object to such reliance on Official Notice, and reserve all rights to request that the Examiner provide a reference or affidavit in support of such assertion, as required by MPEP § 2144.03. Applicants reserve all rights to pursue any cancelled claims in a subsequent patent application claiming the benefit of priority of the present patent application, and to request rejoinder of any withdrawn claim, as required by MPEP § 821.04.

CONCLUSION

Applicants respectfully submit that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicants' representative at (612) 371-2132 to facilitate prosecution of this application.

If necessary, please charge any additional fees or deficiencies, or credit any overpayments to Deposit Account No. 19-0743.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 21 day of May, 2009.

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